CHAPTER 3

Installing the Cisco 2500 Series Access Server

This chapter guides you through the installation of the Cisco 2500 series access server and includes the following sections:

- Required Tools and Parts
- Installing the Rubber Feet
- Rack-Mounting the Chassis
- Wall-Mounting the Chassis
- Connecting to the Network
- Connecting the Console Terminal and Modem
- What to Do after Installing the Access Server Hardware

Caution If you plan to place the access server on a desk or table, do not place anything on top of the access server that weighs in excess of 10 pounds (4.5 kg). Excessive weight on top could damage the chassis.

Required Tools and Parts

Following are the tools and parts required to install the access server:

- Flat-blade screwdrivers: small, 3/16-inch (0.476 cm), and medium, 1/4-inch (0.625 cm)
- ESD-preventive wrist strap
- A thread-forming screw (not included), to attach a ground wire to the protective grounding terminal on the chassis rear panel
- Rubber feet for desktop installation.
- Rack-mount brackets (used for rack-mounting or wall-mounting) and hardware (optional), including screws you must provide for rack-mounting and wall-mounting.
- An interface cable for each interface you will connect.

In addition, you might need the following external equipment:

- Channel service unit/digital service unit (CSU/DSU) for the serial interfaces.
- Ethernet transceiver or Token Ring media attachment unit (MAU).
- Console terminal (an ASCII terminal or a PC running terminal emulation software) configured for 9600 baud, 8 data bits, no parity, and 2 stop bits. A terminal is required unless you are using the AutoInstall procedure. See the section “Connecting the Console Terminal and Modem” later in this chapter for the procedure to connect a console terminal.
- Modem for remote system access (optional).

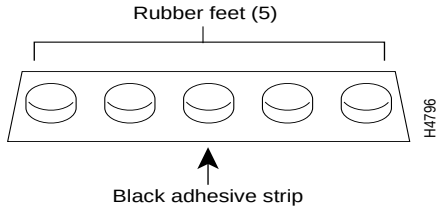
Installing the Rubber Feet

This section explains how to install the rubber feet on the bottom of the chassis. If you want to rack-mount the chassis, skip this section and proceed with the next section, "Rack-Mounting the Chassis." To wall-mount the chassis, skip this section and proceed with the section "Wall-Mounting the Chassis" later in this chapter.

Before placing the access server on a desktop, shelf, or other flat, secure surface, perform the following steps to install the rubber feet:

Step 1 Locate the rubber feet on the black adhesive strip that shipped with the chassis. (See Figure 3-1.)

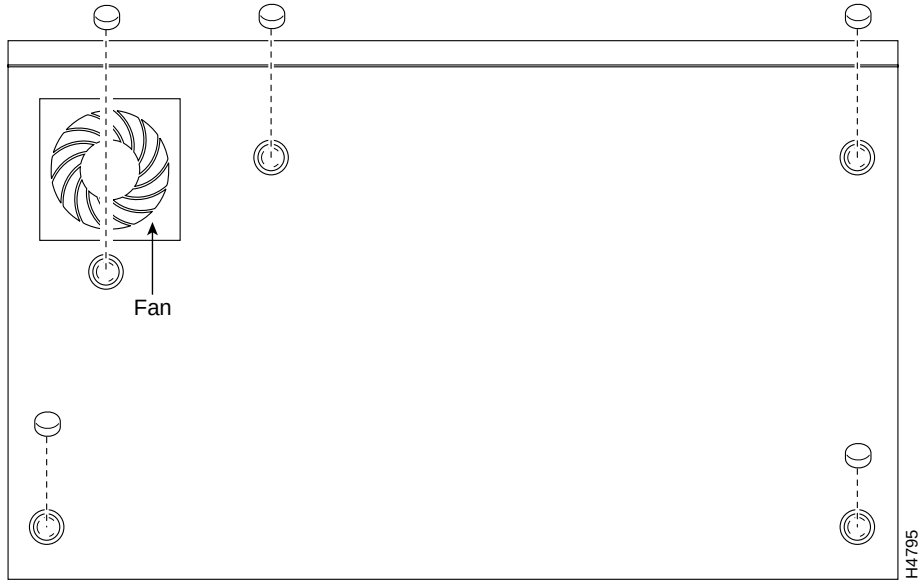
Figure 3-1 Identifying the Rubber Feet



Step 2 Place the access server upside down on a smooth, flat surface.

Step 3 Peel off one of the rubber feet from the black adhesive strip and place it adhesive-side down onto one of the five round recessed areas on the back of the chassis, as shown in Figure 3-2. Repeat this step to install the remaining four feet.

Figure 3-2 Installing the Rubber Feet



Rack-Mounting the Chassis

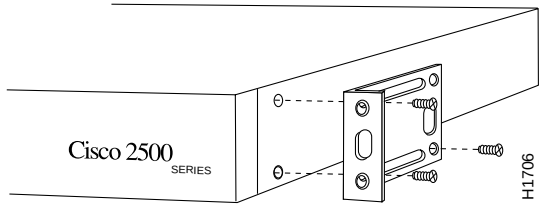
Depending on the rack you are using, attach the rack-mount brackets to the chassis using one of the following figures as a guide:

- Figure 3-3 and Figure 3-4 for 19-inch racks
- Figure 3-5 for 19-inch center-mount telco racks
- Figure 3-6 for installing the chassis in a rack (all rack types)

19-Inch Rack

To install the chassis in a 19-inch rack with the front panel forward, attach the rack-mount brackets as shown in Figure 3-3.

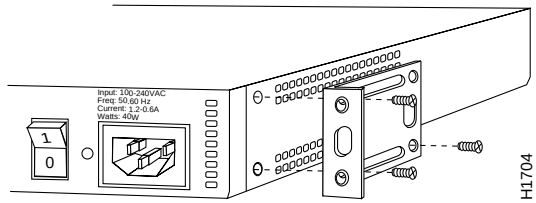
Figure 3-3 19-Inch Rack Installation—Front Panel Forward



Note: The second bracket attaches to the other side of the chassis.

To install the chassis in a 19-inch rack with the rear panel forward, attach the rack-mount brackets as shown in Figure 3-4.

Figure 3-4 19-Inch Rack Installation—Rear Panel Forward

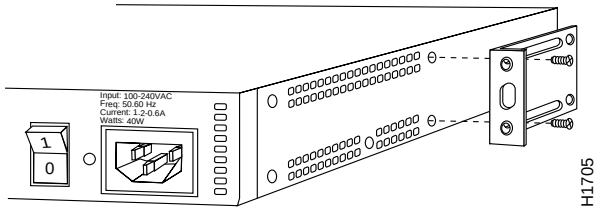


Note: The second bracket attaches to the other side of the chassis.

Telco Rack

To install the chassis in a 19-inch, center-mount telco rack, attach the rack-mount brackets as shown in Figure 3-5.

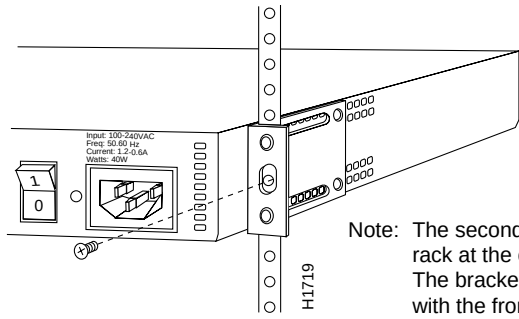
Figure 3-5 Telco Rack Installation—Rear Panel Forward



Note: The second bracket attaches to the other side of the chassis. The brackets can also be installed with the front panel forward.

Using the screws you provide, attach the chassis assemblies to the rack as shown in Figure 3-6.

Figure 3-6 Attaching the Chassis to the Rack—Rear Panel Forward



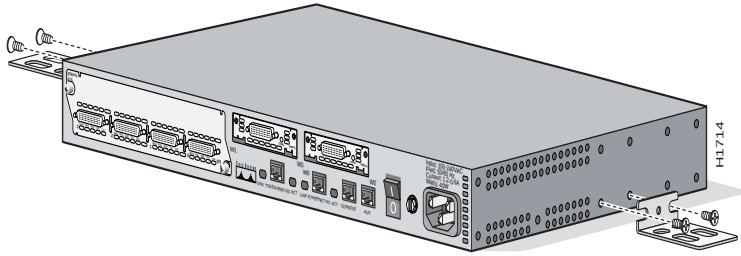
Note: The second bracket attaches to the rack at the other side of the chassis. The brackets can also be installed with the front panel forward.

Wall-Mounting the Chassis

Following is the procedure for wall-mounting the chassis:

Step 1 Attach the brackets as shown in Figure 3-7.

Figure 3-7 Attaching the Wall-Mount Brackets

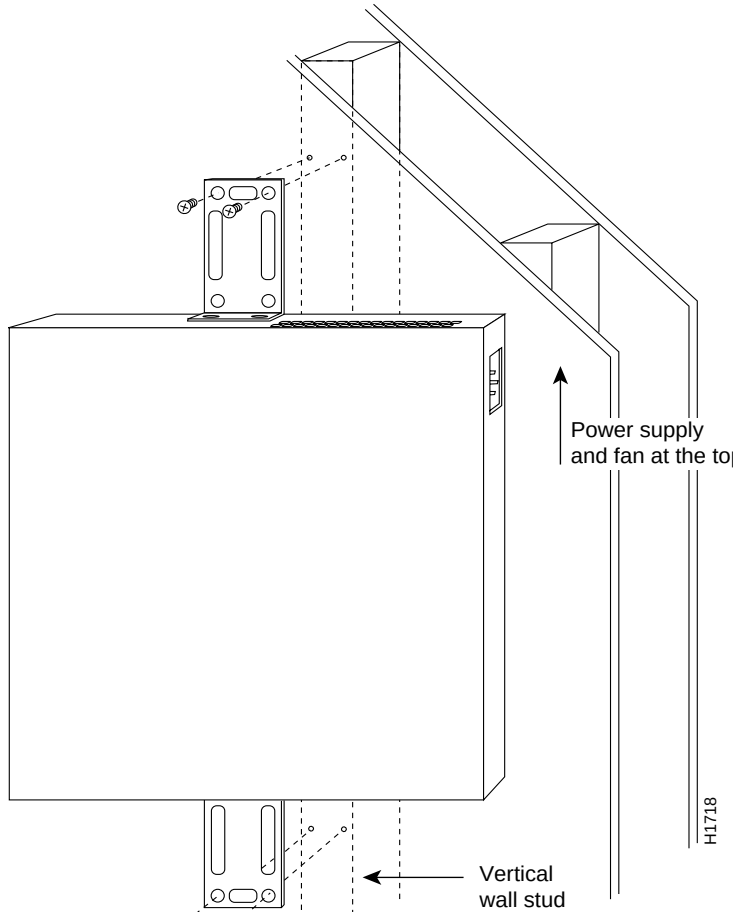


Step 2 Using screws and anchors you provide, attach the chassis assembly to the wall as shown in Figure 3-8. We recommend the following:

- For the best support of the chassis and cables, attach the brackets so that the screws align with a vertical wall stud.
- For the best ventilation of the chassis, mount the chassis with the power supply and fan at the top.

Caution To prevent the chassis from pulling away from the wall when cables are attached, align the brackets and screws with a vertical wall stud. (See Figure 3-8.) To ensure adequate ventilation, make sure there is clearance between the access server and the wall by adjusting the brackets on the access server. Mount the access server as shown in Figure 3-8, placing the chassis fan and power supply at the top.

Figure 3-8 Wall-Mounting the Chassis



Connecting to the Network

Take the following steps to connect the access server to your networks:

Note Refer to the document *Cisco 2500 Series Public Network Certification* for information on connection prerequisites and related warnings.

Step 1 Connect the Ethernet or Token Ring port to the transceiver or MAU as shown in Figure 3-9 or Figure 3-10.

Note If your Ethernet connection requires jackscrews, remove the slide-latch assembly from the AUI connector and attach the jackscrews provided.

Figure 3-9 Connecting Ethernet Transition Cables

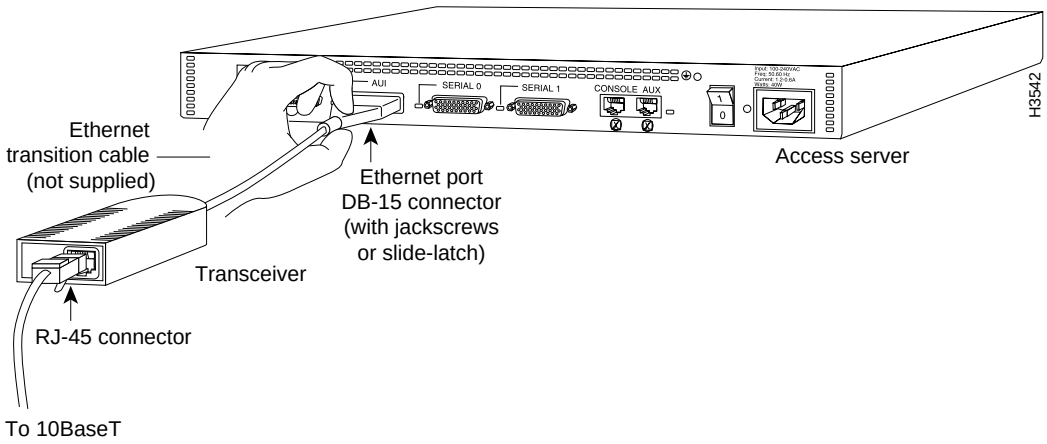
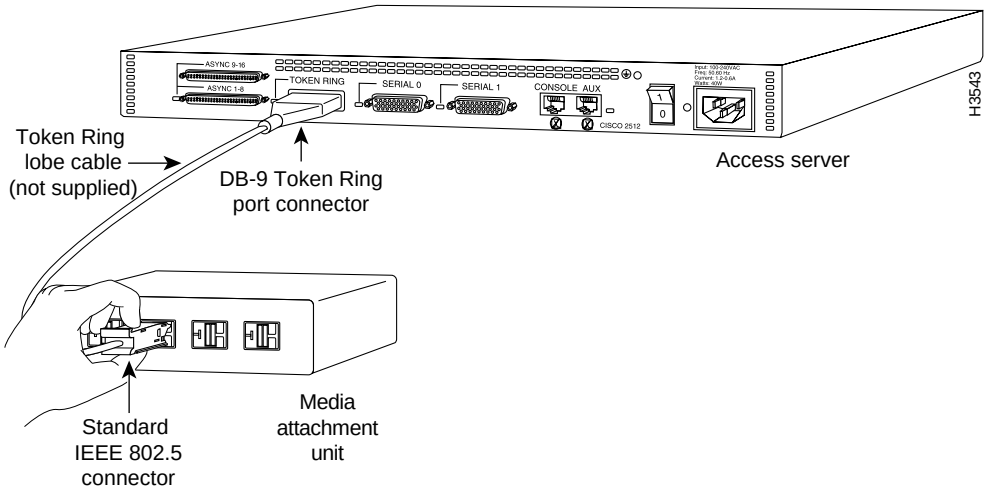
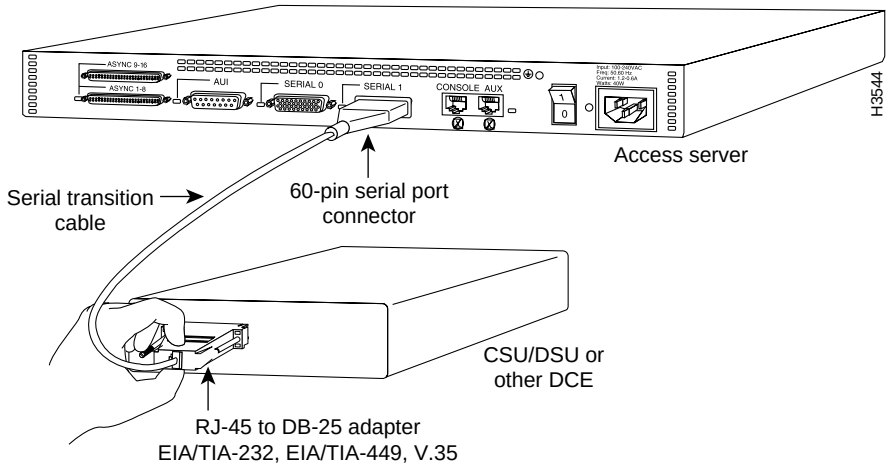


Figure 3-10 Connecting Token Ring Cables



Step 2 Connect the synchronous serial ports to the modem or CSU/DSU, as shown in Figure 3-11. Make certain to connect the 60-pin serial port connector as shown.

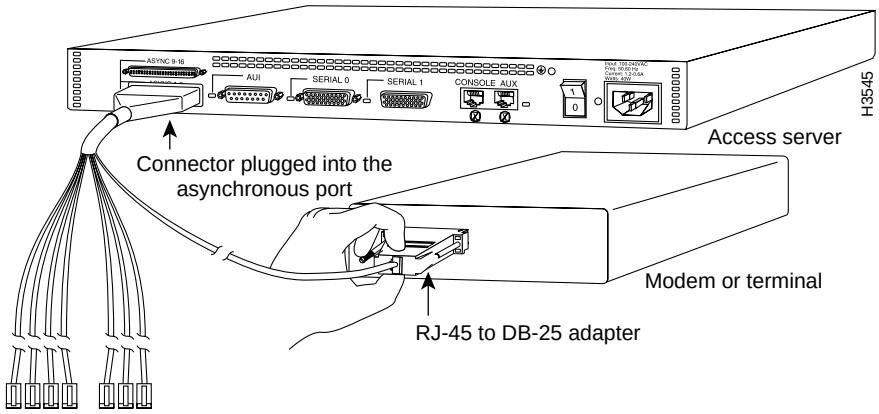
Figure 3-11 Connecting Synchronous Serial Cables



Step 3 Connect the asynchronous breakout cable to one of the 68-pin ports, and then use the RJ-45-to-DB-25 adapters to connect the breakout cable and your asynchronous devices. (See Figure 3-12.)

For additional instructions on connecting asynchronous devices to the breakout cable, refer to the appendix "Cable Specifications."

Figure 3-12 Connecting Asynchronous Serial Cables



Caution Make sure that the 68-pin connector on the breakout cable is securely connected to the access server. A short could occur which might damage the access server if the connection is disconnected.

Step 4 Using an M 3.5 thread-forming screw (not included), attach a ground wire to the protective grounding terminal on the rear panel of the chassis, as required by your installation.

Step 5 Connect the power cable between the access server and the AC source.

Connecting the Console Terminal and Modem

The console terminal is used to provide local administrative access to the access server. Connect the terminal to the console port. The auxiliary port can be used for with a terminal, or with a modem for remote access.

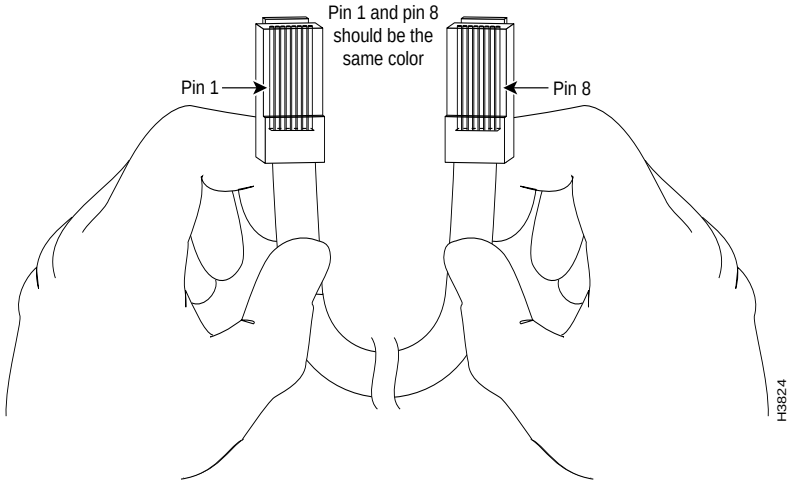
Connecting to the Console Port

This section explains how to connect a terminal (an ASCII terminal, or a PC running terminal emulation software) to the console port on the access server:

Step 1 Connect a terminal to the console port using a roll-over RJ-45 cable and an RJ-45-to-DB-25 adapter. If you are using the cable provided by Cisco, the adapter will be labeled "Terminal."

A roll-over cable can be detected by comparing the two modular ends of the cable. Holding the cables in your hand, side-by-side, with the tab at the back, the wire connected to the pin on the outside of the left plug should be the same color as the pin on the outside of the right plug. (See Figure 3-13.) If your cable was purchased from Cisco, pin 1 will be white on one connector, and pin 8 will be white on the other (a rollover cable reverses pins 1 and 8, 2 and 7, 3 and 6, and 4 and 5).

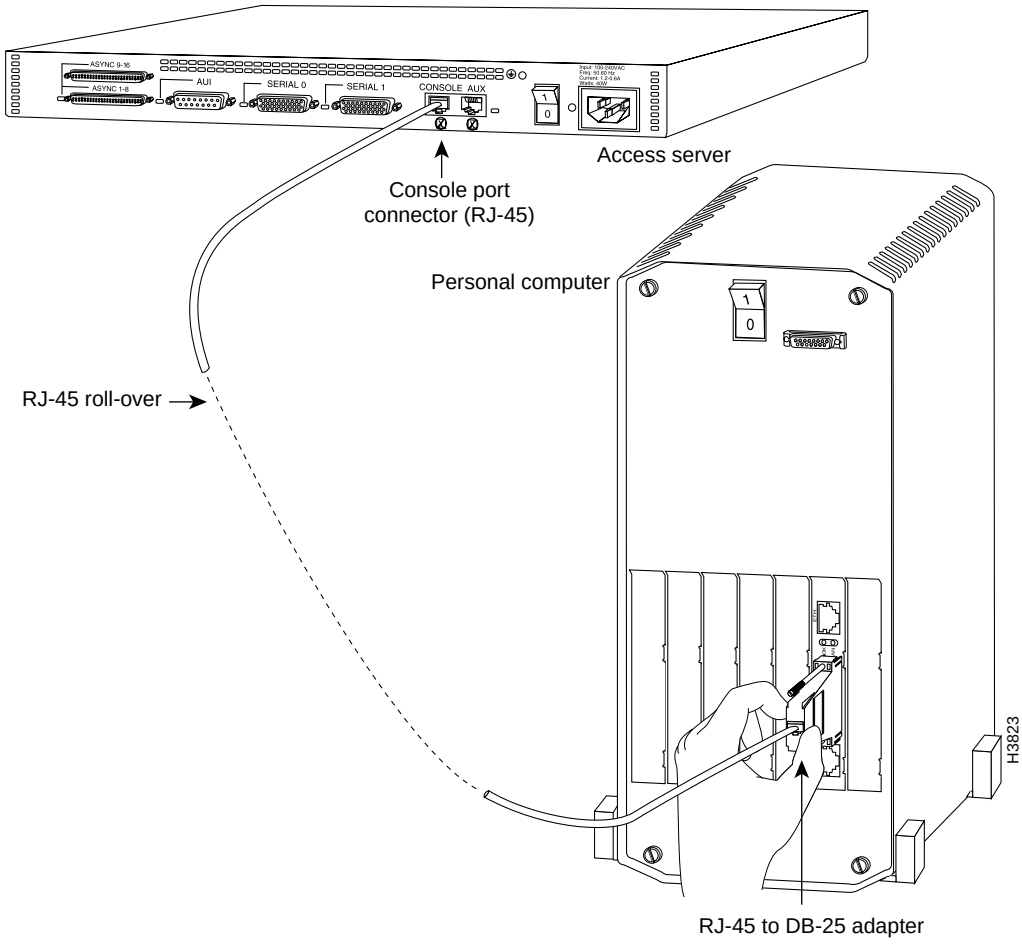
Figure 3-13 Identifying a Roll-Over Cable



Additional information on roll-over cable pinouts is available in the appendix "Cable Specifications."

Connection to a terminal will require an RJ-45-to-DB-25 adapter, and possibly a DB-25-to-DB9 adapter. (See Figure 3-14.)

Figure 3-14 Connecting the Console Terminal



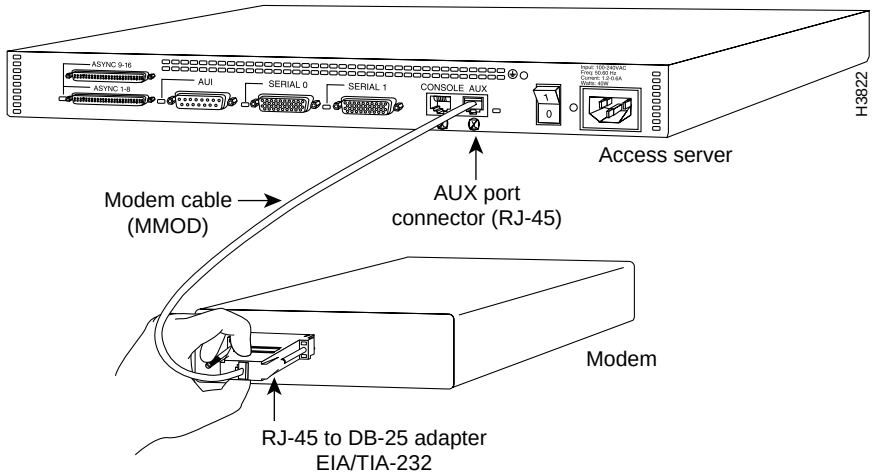
Step 2 Your terminal or PC terminal emulation software should be configured for 9600 baud, 8 data bits, no parity, and 2 stop bits (9600, 8/N/2).

Connecting a Modem to the Auxiliary Port

This section explains how to connect a modem to the console port on the access server:

Step 1 Connect a modem to the auxiliary port using a roll-over RJ-45 cable with an RJ-45-to-DB-25 adapter. The adapter provided by Cisco will be labeled "Modem." (See Figure 3-15.)

Figure 3-15 Connecting a Modem to the Auxiliary Port



Step 2 To configure the auxiliary port for modem operation, see the section "Modems" in the appendix "Internetworking Primer." Make sure that the modems and the auxiliary port are configured for the same transmission speed (38400 baud is normal) and hardware flow control with standard DCD and DTR operations.

What to Do after Installing the Access Server Hardware

After you install the access server hardware, the system is ready to be powered on and configured. For information on software configuration, refer to the chapter "Configuring the Cisco 2500 Series Access Server."